

V.B.2.N.a. CIRSIIUM ARVENSE / MIXED GRAMINOIDS HERBACEOUS VEGETATION [PROVISIONAL]

Canada Thistle / Mixed Graminoids Herbaceous Vegetation Alliance

CIRSIIUM ARVENSE – WEEDY FORBS HERBACEOUS VEGETATION

Canada Thistle - Weedy Forbs Exotic Vegetation

ELEMENT CONCEPT

GLOBAL SUMMARY: This Canada thistle type is widely naturalized in the northern United States and Canada. Stands occur on a variety of open disturbed habitats, including pastures, ditches, bottomlands, and waste areas. The vegetation is dominated by medium-tall (0.5-1 m) forbs. The dominant forb is *Cirsium arvense*, a naturalized species from Eurasia. Other weedy species may occur as well, but native species are generally less than 10% cover. Native species may include mixed-grass prairie grasses, such as *Pascopyrum smithii* and *Hesperostipa comata* (= *Stipa comata*), as well as others.

Where native species are conspicuous enough to identify the native plant association that could occupy the site, the stand should be typed as such.

ENVIRONMENTAL DESCRIPTION

USFWS Wetland System: Palustrine

Florissant Fossil Beds NM Environment: Patches of *Cirsium arvense* occur throughout the monument, occupying floodplain terraces, bottoms of moist swales, livestock watering pond margins, and depressions remaining from breached livestock watering ponds. Most stands invaded sites with human or natural disturbance, and are continually disturbed by pocket gopher activity in extant stands. The monument is making extensive efforts to control the spread and eliminate current stands of *Cirsium arvense* by mowing and applying herbicides, among other management activities.

Global Environment: Stands occur on a variety of open disturbed habitats, including ditches, bottomlands, waste areas, and similar sites.

VEGETATION DESCRIPTION

Florissant Fossil Beds NM Vegetation: Stands or patches of *Cirsium arvense* are dense and grow to 0.5–1.0 m tall. They occupy nearly flat slopes in mesic sites of all aspects. *Cirsium arvense* contributes from 55–80% vegetative cover within the type, which contains a high litter value of 95–100%. Most stands support from 75–100% total vegetative cover. On most sites pocket gopher activity was moderate to high, continually disturbing the soil within the patches. The most common native species found in the dense Canada thistle stands are *Juncus balticus* and *Achillea millefolium*, which typically contribute from 1–5% herbaceous cover. In one palustrine wetland stand, *Carex utriculata* contributed approximately 40% aerial cover and the stand was classified under *Carex utriculata* Herbaceous Vegetation. Typically associated exotic species include *Poa pratensis*, *Bromus inermis*, *Elymus repens* (= *Elytrigia repens*), *Thlaspi arvense*, and *Linaria vulgaris*. At least some of the stands of *Cirsium arvense* appear to occupy areas with historic intense livestock use, as is observed around watering tanks, salt blocks, and holding pens.

Cirsium arvense stands are being actively managed at Florissant Fossil Beds NM, by mowing and herbicide application. The aerial photo signature ranges from dark green to black on true color images.

Global Vegetation: The type is dominated by medium-tall (0.5–1.0 m) forbs. The dominant forb is *Cirsium arvense*, a naturalized species from Eurasia. Other exotic weedy species may also occur in the stands, but native species are generally less than 10% herbaceous cover.

Global Dynamics:

MOST ABUNDANT SPECIES

Florissant Fossil Beds NM

Stratum

Forb
Graminoids

Species

Cirsium arvense, *Linaria vulgaris*
Juncus balticus, *Poa pratensis*

**Global
Stratum**

Forb

Species

Cirsium arvense

CHARACTERISTIC SPECIES

Florissant Fossil Beds NM

Stratum

Forb

Graminoid

Species

Cirsium arvense, *Achillea millefolium*

Juncus balticus, *Poa pratensis*

Global

Stratum

Forb

Species

Cirsium arvense

OTHER NOTEWORTHY SPECIES

Florissant Fossil Beds NM

Global

Stratum

Species

GLOBAL SIMILAR ASSOCIATIONS:

Cirsium arvense – Weedy Forb Great Plains Herbaceous Vegetation

GLOBAL STATUS AND CLASSIFICATION COMMENTS

Global Conservation Status Rank: GW

Global Classification Comments: The stands at Florissant most closely fit this association that has been described for the midwestern United States. At Florissant native and introduced graminoid species co-occur with the *Cirsium*, but these communities are very similar to those found throughout the Midwestern U. S. and into Colorado.

ELEMENT DISTRIBUTION

Florissant Fossil Beds NM Range: This type is generally distributed as patches and small stands along creeks and mesic swales throughout the monument, especially along Grape Creek. It usually occurs as small patches, <0.25 ha, on floodplain terraces, moist swale bottoms, and around old livestock watering ponds.

Global Range: This type is widely naturalized in the northern United States and Canada.

Nations: US

States/Provinces: ND, SD, CO

ELEMENT SOURCES

Florissant Fossil Beds NM Inventory Notes: Plot 68

Classification Confidence: Identifier: CEG005260

REFERENCES: Von Loh, J., D. Cogan, J. Butler, D. Faber-Langendoen, D. Crawford, and M. Pucherelli. 2000. USGS-NPS Vegetation Mapping Program, Theodore Roosevelt National Park, North Dakota. USBR Technical Service Center, Technical Memorandum No. 8260-00-04. Denver, CO.